

**Advisory Action
Before the Filing of an Appeal Brief**

Application No. 10/521,576	Applicant(s) NOGUCHI ET AL.
Examiner KADE ARIANI	Art Unit 1651

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 01 April 2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.
NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: as in final.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____
13. ☒ Other: The claims remain rejected for the reasons of record.

/Leon B Lankford/
Primary Examiner, Art Unit 1651

In response to applicant's argument that according to the claimed invention 100nM GlcNAc produced 43.7 mM NeuAc, an approximately 44% yield. This is significant improvement not taught or suggested by the cited art, it is noted that the features upon which applicant relies (i.e., 44% yield) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Moreover, as mentioned above, Plumbridge & Vimr teach the enzyme can be overproduced from a multicopy plasmid which would increase the capacity to convert GlcNAc-6-P to ManNAc-6-P. Thus, a person of ordinary skill in the art at the time the invention was made would have recognized that the efficiency of the conversion could have been improved and product yield could have been increased by increasing the enzyme activity.

In response to Applicant's argument s that a person of ordinary skill in the art would not have been motivated to combine the elements of cited references to arrive at the claimed invention. A person of ordinary skill in the art at the time the invention was made could have been motivated to combine the prior art teachings and to modify the method of Koizumi et al. by substituting N-acetylglucosamine 2-epimerase with N-acetylglucosamine-6-phosphate 2-epimerase as taught by Plumbridge & Vimr in order to provide a process for producing CMP-N-acetylneuraminic acid (CMP-NeuAc) with predictable results of converting GlcNAc-6-P to ManNAc-6-P. The motivation as taught by Tabata et al. would be the potential of NeuAc related compounds for the development of therapeutics, and to provide an efficient process useful for the production of CMP-NeuAc by using inexpensive precursors (e.g. GlcNAc-6-P) for producing CMP-N-acetylneuraminic acid. The claim method would have been obvious because substitution of one known enzyme, in this case N-acetylglucosamine 2-epimerase with another, in this case N-acetylglucosamine-6-phosphate 2-epimerase, would yield predictable results to one of ordinary skill in the art at the time the invention was made.

Moreover, Applicants amendments to the claims, new claims 8 and 9, raise new issues that would require further consideration and search.